

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listing, of claims in the application.

1. (Currently Amended) A computer implemented method, comprising:
storing one or more tasks in a queue at a plurality of preselected time intervals, wherein
each task has an associated exit routine;
determining at least one task to process based on a priority scheme;
processing the at least one task; and
calling the exit routine based on determining that the task has not completed processing
within a preselected execution period of time.
2. (Canceled)
3. (Previously Presented) The computer implemented method of claim 1, further comprising
generating an interrupt, and wherein storing the one or more tasks in the queue comprises storing
the one or more tasks in the queue in response to detecting the interrupt.
4. (Previously Presented) The computer implemented method of claim 1, wherein
determining at least one task to process based on the priority scheme comprises determining the
at least one task based on a first-in, first-out priority scheme.
5. (Canceled)
6. (Previously Presented) The computer implemented method of claim 1, wherein calling
the exit routine comprises terminating the task currently processing and returning control to a
task picker in the queue.
7. (Previously Presented) The computer implemented method of claim 1, wherein
processing the at least one task comprises executing the task and programming a timer to

generate an interrupt after a preselected time, wherein the preselected time corresponds to the amount of time required for the task to complete executing.

8. (Previously Presented) A computing apparatus, comprising:
a queue having a task picker stored therein, the task picker being configured to:
determine if at least one task other than the task picker is stored in the queue;
transfer control to the at least one task other than the task picker based on determining that the at least one task other than the task picker is stored in the queue so that the at least one task other than the task picker can execute; and
execute in response to the at least one task other than the task picker completing execution and continue executing until a preselected event occurs.
9. (Original) The apparatus of claim 8, wherein the preselected event comprises detection of an interrupt.
10. (Original) The apparatus of claim 8, wherein the preselected event comprises detection of another task being present in the queue.
11. (Original) The apparatus of claim 8, wherein each task stored in the queue comprises an exit routine to terminate that task.
12. (Cancelled)
13. (Previously Presented) The apparatus of claim 8, wherein the task picker determines that more than one task is stored in the queue and wherein the task picker selects a task to execute from the one or more tasks based on a priority scheme.
14. (Original) The apparatus of claim 13, wherein the priority scheme is a first-in, first-out scheme.

15. (Original) An article comprising one or more machine-readable storage media containing instructions that when executed enable a processor to:

store one or more tasks in a storage space at a plurality of preselected time intervals,
wherein each task has an associated exit routine;
determine at least one task to process based on a priority scheme;
process the at least one task; and
call the exit routine based on determining that the task cannot be processed to completion.

16. (Canceled)

17. (Original) The article of claim 15, wherein the instructions when executed enable the processor to generate an interrupt and store the one or more tasks in the storage space in response to detecting the interrupt.

18. (Original) The article of claim 15, wherein the instructions when executed enable the processor to determine the at least one task based on a first-in, first-out priority scheme.

19. (Canceled)

20. (Original) The article of claim 15, wherein the instructions when executed enable the processor to terminate the task currently processing and return control to a task picker in the storage space.

21. (Original) The article of claim 15, wherein the instructions when executed enable the processor to execute the task and to program a time to generate an interrupt at a preselected time, wherein the preselected time is greater than the time required for the task to complete executing.

22. (Previously Presented) An apparatus, comprising:

a queue having a task picker stored therein, the queue adapted to store one or more tasks,
and the task picker being configured to:

select a task from the queue to execute based on a priority scheme;
transfer control to the task so that the task can execute;
a failure recovery timer to generate an interrupt at preselected time intervals, wherein
each preselected time interval is greater than the time it takes for each of the tasks
stored in the queue to execute; and
a controller adapted to:
determine if the task completes execution within the preselected time interval;
terminate the task in response to determining that the task failed to complete
within the preselected time interval; and
execute the task picker in response to terminating the task.

23. (Original) The apparatus of claim 22, wherein the priority scheme is based on a first-in, first-out scheme.

24. (Original) The apparatus of claim 22, wherein each task has an associated exit routine and wherein the controller terminates the task by calling the exit routine.

25. (Original) The apparatus of claim 22, wherein the controller resets the failure recovery timer before executing the task.

26. (Original) The apparatus of claim 22, wherein the controller determines if the task completes execution within the preselected time interval comprises:

detecting a first failure recovery interrupt;
causing an interrupt service routine to determine a task ID associated with a task
executing at the time of the first failure recovery interrupt;
logging the determined task ID;
detecting a second failure recovery interrupt;
determining a task ID associated with a task executing at the time of the second failure
recovery interrupt; and
terminating the task executing at the time of the second failure recovery interrupt in
response to determining that the two task IDs are the same.

27. (Original) The apparatus of claim 22, further comprising a repetitive timer for generating interrupts on a periodic basis, wherein the controller posts a task in the queue in response to detecting an interrupt generated by the repetitive timer.
28. (Original) The apparatus of claim 22, wherein the controller resets the failure recovery timer before executing the task picker.
29. (Canceled)